KB-4000 / KP-100 / SD-100 MULTIFUNCTION SECURITY DEVICE USER'S MANUAL

Rev.: C1

FCC Notes:

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with limits for a Class A digital device pursuant to subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures to correct the interference.

Warranty Limits:

Warranty terminates automatically when any person other than the authorized technicians opens the machine. The user should consult his/her dealer for the problem happened. Warranty voids if the user does not follow the instructions in application of this merchandise. The manufacturer is by no means responsible for any damage or hazard caused by improper application.

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GENERAL DESCRIPTION

OVERVIEW

Table below indicates construction of this series of security devices.

	KB-4000	KP-100/ KP-100U / KP-110/ KP-110U	SD-100 /SD-110
Structure	Stand alone	100 models are upgrade kits to TP/LT 110 models are upgrade kits to TM-4115	
Programmable keypad	Horizontal layout	Vertical layout	N. A.
Magnetic stripe reader	Optional		
Smart card reader	Optional		
iButton reader	N. A.		Optional

OPTIONS

Items underlined below means that this item must be installed by Posiflex authorized distributor only and never by average user. Items in Italic printing below means that this item must be installed prior to delivery from the factory.

- Magnetic Stripe Reader (PS2 KB interface for KB-4000, KP-100/KP-110. and USB interface for KP-100U/KP-110U)
  - ISO 7811 reader head for tracks 1 and 2
  - ISO 7811 reader head for tracks 2 and 3 (only available for PS2 KB interface)
  - ISO 7811 reader head for tracks 1, 2 and 3 + AAMVA + CA DMV
  - JIS/II reader head
- Magnetic Stripe Reader (USB interface for SD-100 and SD-110)
  - ISO 7811 reader head for tracks 1 and 2
  - ISO 7811 reader head for tracks 1, 2 and 3 + AAMVA + CA DMV
  - JIS/II reader head
- Smart card reader
- *Case color charcoal for KP-100, KP-100U, KP-110, KP-110U, SD-100 and SD-110. Color selection between ivory and black for KB-4000***.**
- *iButton receptor*
- iButton key

Note: if all devices utilizing a specific interface are omitted from the product, that interface will not be installed in the product. Ex. For KP-100, KP-110 or KB-4000 with only keypad, there will be no USB interface installed; For SD-100 without the iButton reader, there will be no 9 pin D connector.

INSTALLATION

UNPACKING CONTENTS

Items packed in for	KB-4000	KP-100/ KP-100U/ KP-110 / KP-110U	SD-100 /SD-110
The multifunction security device itself	Yes	Yes	Yes
Screws to hold the upgrade kit to Jiva TP/LT series or TM-4115 series	No	Yes	Yes
24 pcs transparent key caps for single key	Yes	Yes	No
1 pc of key clip	Yes	Yes	No
Legend sheets	Yes	Yes	No
This manual	Yes	Yes	Yes
Utility drivers stored in form of CD ROM	Yes	No	No
iButton key (only when iButton receptor installed)	No	No	2 pcs

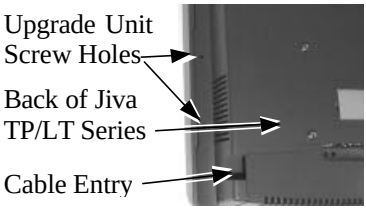
Note: Utility drivers for KP-100 / KP-110 series and SD-100 / SD-110 can be found in the Posiflex Product Information CD ROM packed together with the Jiva series Posiflex touch terminal system or TM-4115 monitor that these upgrade kits are to be applied to. Or please visit our web site for latest updates: *http: www.posiflex.com* or *http: www.posiflex.com.tw*

MECHANICAL FIXATION

For KB-4000 the stand alone security device, there is little concern about the mechanical fixation as long as the security device (keyboard) is placed in a horizontal flat surface not subject to extreme environmental conditions. For SD-100 ordered with the Jiva TP / LT series or SD-110 ordered with TM-4115 series, it is installed on the system or monitor on delivery. For separately ordered SD-100 / SD-110 or KP-100/ KP-100U / KP-110/ KP-110U, it is delivered separately from the system or monitor and needs to be fixed onto the system or monitor per following instructions before use.

You may find two screw holes on back of the right side of the main unit of

Jiva TP/LT series or TM-4115 series as in the right picture. Just align the upgrade unit on the right edge of the main unit after removing these 2 screws then replace them with the attached 2 screws with washers and fasten

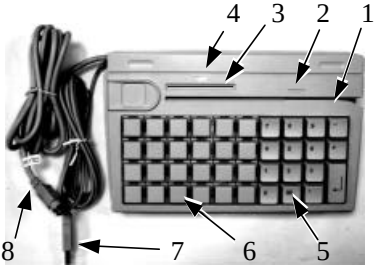


them as indicated in the picture at above left.

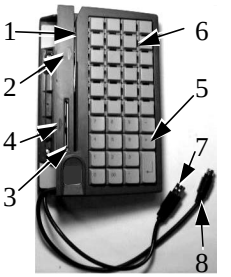
CABLE CONNECTION

Connection To Host

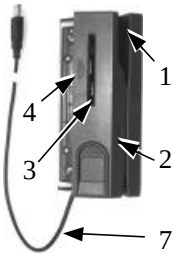
KB-4000



KP-100 / KP-100U
Kp-110 / KP-110U



SD-100 / SD-110

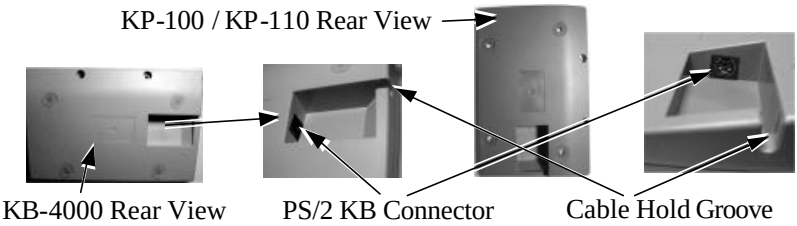


1. MSR slot
2. MSR mark
3. Smart card reader slot
4. Smart card reader mark
5. Numerical keypad
6. Programmable keys
7. USB cable
8. PS/2 KB cable

Please refer to the pictures above with numbered parts illustration listed below them. The USB cable could be absent from KB-4000 / KP-100 / KP-110 if the product is purchased without the smart card reader. On the contrary, KP-100U/ KP-110U is equipped with only USB cable with no PS/2 KB cable. If it is SD100 with only the iButton receptor there will only be the PS/2 cable and RS232 cable. Connect the USB connector of KB-4000, KP-110, KP-110U or SD-110 to a USB hub or the USB port in a PC or a Posiflex POS system. Connect the USB connector of KP-100, KP-100U or SD-100 to one of the USB ports of Jiva TP/LT series in connector area. Connect the PS/2 KB connector of KB-4000 or KP-110 to the PS/2 KB jack in a PC or a Posiflex POS system. Connect the PS/2 KB connector of KP-100 to the PS/2 KB jack in Jiva TP/LT. When the SD-100 is installed with iButton receptor, there will be one additional 9 pin female D connector and a pair of male/female PS/2 keyboard connectors from the upgrade kit. Connect the D connector to the COM port for iButton setup (and data connection). Connect the male PS/2 keyboard connector to the keyboard port in Jiva TP/LT series for data connection if KB interface is selected for data input of iButton key. Route the cable connection for KP-100, KP-100U or SD-100 to Jiva TP/LT series through the side of the cable cover on Jiva series. Break the obstructing side wall of the cable cover in the cable entrance to the connector area according to the needs. Route the cable connection for KP-110, KP-110U or SD-110 through the cable cover area in similar manner and through the base of TM-

4115 to the host PC or POS system.

Extended Connection To PS/2 Keyboard



Refer to the pictures of bottom of KB-4000 and KP-100 / KP-110 with their partially enlarged pictures to the right above. In the cavity found at rear side of KB-4000 or KP-100 / KP-110, there is a PS/2 KB jack. Connect a standard PS/2 keyboard device to this jack and insert the cable from the PS/2 keyboard device into the cable hold groove for strain relief and fixation when a PS/2 KB is required.

If a PS/2 keyboard is to be used in Jiva TP/LT series or TM-4115 series with SD-100 / SD-110 installed with iButton receptor, please connect it to the female connector from SD-100 / SD-110. However, should there be any compatibility issue for this extended keyboard, please try use another brand keyboard or a USB keyboard for application. **When a programmable keyboard is to be connected for programming, please connect it between the host and the PS/2 connector of the iButton reader otherwise programming may fail.**

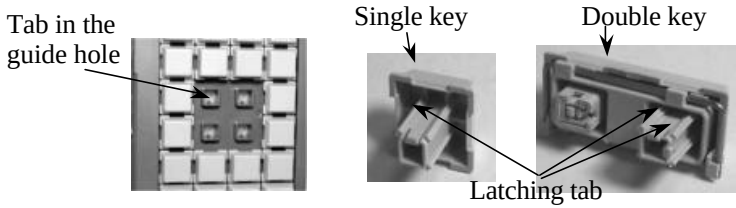
KEYTOP LAYOUT

Keytop Replacement

The keypad in KB-4000 or KP-100/ KP-100U/ KP-110/ KP-110U is organized into 2 parts: a 4 by 4 numerical keypad area and a 4 by 6 programmable keypad area. However, this keypad allows some layout alterations by the system integrator. Besides the standard single key installed, there are double keys and blank keys for purchase to provide more convenient interface with the user.

When replacement of keytop is required, it is advisable to use a flattop (minus sign) screw driver (Do not use the attached key clip for this operation.) to help getting the key top off gently. Please always first orientate the key tops per below instructions before inserting any keytop into the case of the keypad. **Failure to do so could result in permanent damage not covered in product warranty.** Please always match the latching tab on bottom stem of keytop with the tab in guiding hole and gently press the key top down till a click sound is

heard as indicated in the pictures below.



Labeling On Keytop

The multifunction security device is provided with an easy and durable method for reminding the user of content programmed in each programmable key. First preprint (or write) in each cell of the attached colored legend sheet the "name" for each key. Stick each cell to the corresponding keytop and then put on the transparent key cap from the accessories. In this way, the labeling will be protected and resistant to scratch or rubbing.

When re-labeling is required, please use the attached key clip to hook up the transparent key cap and change the label then re-cap.

KEYPAD PROGRAMMING

The programming of the keys above the numerical keypad in KP-100/ KP-100U or KP-110/ KP-110U and those beside the numerical keypad in KB-4000 is in general the task of the system integrator and not the average end user. For end user, please go to the chapter of "OPERATION GUIDE" of this manual directly.

Utility Installation

In the Posiflex Product Information CD attached with Posiflex POS terminal, there is a subfolder named as "\Drivers\KP" or "\Drivers\KP100" or please download the keypad programming utility for KB-4000 / KP-100 / KP-100U / KP-110/ KP-110U from our web site:
http://www.posiflex.com.tw/DriversDownload.asp.

In the above mentioned subfolder there are 2 further subfolders "KBM40.xxx" and "KBW40.xxx" with "xxx" representing any number of the utility revision. For operating system of MS-DOS or Win98 DOS box, please execute "KBM40.xxx\INSTALL.EXE" to install the utilities "KBM.EXE" and "RWM.EXE". The "KBM.EXE" is a key-by-key programming utility for DOS environment. The "RWM.EXE" is a special direct transfer utility under DOS. Execute "KBW40.xxx\SETUP.EXE" to install the programming utility "KBW.EXE" for KB-4000 / KP-100 / KP-110 in Windows OS. Please note that for programming of KP-100U / KP-110U, only the "uKBW" utility is

applicable. Execute "uKBW_xxx\SETUP.EXE" to install the programming utility "uKBW.EXE". After completion of the "Setup", there will be a program group "Posiflex Tools" in the program files. Clicking the program "Posiflex Programmable Keyboard" in this group will activate the KBW.EXE for KB-4000 / KP-100 / KP-110. Clicking the program "Posiflex USB Programmable Keyboard" in this group will activate the uKBW.EXE for KP-100U / KP-110U.

Programming Preparation

A normal keyboard may be required for inputting data in keypad programming. If a PS/2 interface keyboard is to be used, please connect it to the extended PS/2 KB jack in the recessed cavity on back of KB-4000 / KP-100/ KP-110 as mentioned earlier. Please note that there must not be any other PS/2 device connected in between the KB-4000 / KP-100 / KP-110 and the PS/2 KB port of the host system in the keypad programming operation. For KP-100U/ KP-110U the normal keyboard can be connected to either the PS/2 KB port or an available USB port of the System according to the keyboard type.

Quick Reference Guide for Keypad Programming

Please refer to our web site for every detail in programming the programmable keyboards or keypads. The following simplified guide severs as a concise tool for instant application when the KBM utility for POS is used.

Keys To Program	How to Program Them
A - Z, 0 - 9, ~ ` ! @ # $ % ^ & * ( ) - _ = + } { [ ] | \ ' ; " : /. , < > ?	**Press:** Enter, "Desired Key or Keys", Down Arrow
Esc, F1 - F12, Back Space, Shift, Ctrl, Alt, Insert, Delete, End, Page Up, Page Down, Print Scrn, Scroll Lock, Break, and all Arrow Functions	**Press:** (Alt-N), Esc, "Desired Key", Down Arrow
Tab, Enter	**Press:** (Alt-N), "Desired Key", Down Arrow
Caps Lock	**Press:** Enter, (Alt-C), Down Arrow
Multi-shift	**Press:** (Alt-N), (Alt-M), Down Arrow - - - - Press (Alt-M) as many times as needed.
Separator	**In Between Any Text, Press** (Alt-S)

In KBW or uKBW utility for Windows environment, to program the first group of above table just press "Desired key or keys" in the editing area of

the selected key. To program the rest groups, please click the right button of mouse in the editing area and select from the pop-up menu. Please note that for KP-100U/ KP-110U, the "Multi-Shift" and "Separator" are not applicable.

Hardware Limitation in Programming

In case of "multiple combination key" application which means pressing three or more keys at the same time to obtain certain data output from the keyboard, there could be some limitations inherent from the nature of keyboard structure. The CPU of keyboard detects the contact between the "horizontal" and "vertical" lines for each key press, recognizes which key is pressed and sends correspondent data to the host computer. When there are many keys pressed at the same time, and the pattern of the contacts coincides with some special relationship, there are chances that the CPU of keyboard be confused about exactly which keys are pressed. The system integrator may change the locations of the key-definition to prevent this once such confusion happens.

MSR CONFIGURATION

Please find the subfolder "\Drivers\KP\KBMSR" in the Posiflex Product Information CD or download from our web as mentioned earlier for the ISO MSR option in KB-4000 / KP-100 and go to either the subfolder "DOS" for the MSR manager under MS-DOS or the other subfolder "MSR_xxx" for setting up the MSR manager under Windows OS. Please find the subfolder "\Drivers\KP\USBMSR_xxx" in the CD or download from our web as mentioned earlier for the ISO MSR option in SD-100 / KP-100U / KP-110U and execute the "SETUP.EXE" for setting up the MSR manager under Windows OS. The MSR manager can control parameters like individual track enable/disable, Alt+Num emulation and Start/end sentinel substitute.

SMART CARD READER DRIVER INSTALLATION

This driver should be installed in the system prior to the system detection of the new hardware. Therefore, the USB connection of KB-4000 / KP-100/ KP-100U/ KP-110/ KP-110U/ SD-100/ SD-110 could have to be disconnected before driver installation and then connect it back afterwards. Please find the subfolder "\Drivers\KP\SC200" in the Posiflex Product Information CD or download from our web as mentioned earlier. Execute the "SETUP.EXE" to install the driver into the Windows OS. Please note that the driver must be installed from the subfolder **"SC200"** within subfolder "\Drivers\KP\". The subfolders like "SC100" or "FingerPrint" are **not** applicable to the latest generation of these security devices. The reader is PC/SC 1.0 compliant. The reader is also EMV level 1 compliant. The smart card reader is also supported by Microsoft CCID generic class driver.

OPERATION GUIDE

MAGNETIC STRIPE READER

For magnetic stripe card reading, be sure to insert the card to the bottom with magnetic stripe facing the mark aside the slot. The movement of the card can be either inserting the card from the top surface then sliding the card down out of the slot, or sliding the card upward from the lower side of the slot till it reaches the top end as long as the card is a standard one. A non-standard card recorded without complete degaussing prior to recovery may accept only one direction in card reading.

The magnetic stripe reader in KP-100 / KP-110 or KB-4000 connects to the host through KB port and therefore requires no driver installation to get it working. The magnetic stripe reader in KP-100U/ KP-110U/ SD-100 / SD-110 connects to the host through USB port working as a USB KB and therefore also requires no driver installation except **setting up the USB keyboard to be enabled in system BIOS CMOS setup**. This setup is particularly important for application of the USB KB device to operate under DOS environment. Please note that the KP-100U/KP-110U delivered particularly for DOS environment application is different from that for Windows environment by internal jumper setting or circuitry and therefore they are not freely interchangeable for end users.

SMART CARD READER

Card Insertion

For smart card reading, please insert the end of the smart chip first and have the chip facing the mark aside the smart card reader slot.

Applicable Smart Card Type

The smart card reader can be used for both asynchronous and synchronous type smart cards. For asynchronous type smart card, it reads the card with T = 0 and T = 1 protocols up to 340 Kbps of EMV and ISO modes. For synchronous type smart card, coverage includes: 2-wire (SLE4432/42), 3-wire (SLE4418/28) etc.

PROGRAMMABLE KEYPAD (not for SD-100/SD-110)

Programmable Keys

The programmable keys can deliver to the host system the string of keyboard input as programmed. Please note that it is also possible to use combination keys if programmed to.

Numerical Keypad

The numerical keypad is durably pre-marked. The numerical keypad is not applicable in combination keys.

DOS Application Notice for KP-100U / KP-110U

The keypad KP-100U/ KP-110U connects to the host through USB port working as a USB KB and therefore also requires no driver installation except **setting up the USB keyboard to be enabled in system BIOS CMOS setup**. This setup is particularly important for application of the USB KB device to operate under DOS environment. Please note that the KP-100U / KP-110U delivered particularly for DOS environment application is different from that for Windows environment by internal jumper setting or circuitry and therefore they are not freely interchangeable for end users.

IBUTTON RECEPTOR (SD-100/SD-110 only)

The iButton option can be programmed to communicate on either RS232 interface or PS/2 KB interface through Hyper Terminal configuration setup. Please refer to instruction on our web site for the detail. In general, this should be taken care of by the software in the way organized by the system integrator.

Each iButton receptor is delivered with 2 iButton keys attached. Each iButton key carries unique ID. Please approach your dealer for any additional iButton key required.

POSIFLEX T31454

警告使用者

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策.